

ICT Applications in Literacy

The aim of this document is to show how ICT may add value to aspects of literacy learning across the primary phase. It comprises a collection of brief illustrations, grouped by the type of technology they exploit. Illustrations may also be accessed by hyperlink from a grid which shows where they might fit in terms of age range and strand of literacy learning. Of course, the technologies and approaches listed will need to be interpreted and amended to suit the needs of learners. They may also be adapted for use beyond the age ranges specified here.

		Foundation Stage	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
Speaking and listening	Speaking	Photo prompts	Photo sequence	MP3 commentary Presentations Reading <i>without</i> expression	Podcast Peer review Presentations
	Listening and responding	Recorded audio	Recorded audio ICT instructions Video conferencing	Broadcast features Video conferencing	Analysing broadcast talk Video conferencing
	Group discussion and interaction	Hide and reveal pictures	Hide and reveal pictures	Hide and reveal pictures	Hide and reveal pictures Peer review
	Drama	Role-play software Audio networks	Audio networks	Chat scripts	Radio drama

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Reading	Word recognition: decoding (reading) and encoding (spelling)	Phonics photos			
	Word structure and spelling	Wordbank	Crossword solver	Crossword compiler Homograph investigations	Crossword compiler 'Find' investigations
	Understanding and interpreting texts			Dictionary Text type swap Thesaurus Thesaurus surfing Précis	Computer manuals and help Director's commentary
	Engaging with and responding to texts	Stop-frame animation	Stop-frame animation	Online reading journal VC hot seat Email inbox Ongoing online event Biographical websites Online book reviews	Online reading journal Online discussion Email news stream Email inbox Newsreel footage Online news Crossword compiler Multimedia visualisation

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Writing	Word recognition: decoding (reading) and encoding (spelling)	Phonics photos			
	Word structure and spelling	Wordbank	Crossword solver	Crossword compiler Homograph investigations	Crossword compiler 'Find' investigations
	Creating and shaping texts	Wordbank	Email stories	Multimedia books Multimedia poems Email stories	Computer manuals and help Multimedia books TV Advertisements Screen recorder
	Text structure and organisation	Wordbank Photo prompts	Photo storyboard Audio comments Archive text	Cartoon storyboard Comments Narrative balance	Survey analysis Track changes
	Sentence structure and punctuation	Wordbank	Text mark Find and replace punctuation	Text mark Find and replace punctuation Sentence level re-sequence	Text mark
	Presentation	Handwriting challenge	Keyboard tutor	Keyboard tutor	Keyboard tutor

Category	Title	Description	Resources
Audio	Recorded audio	Listen to tapes, CDs, radio or web-based media and express views about how a story or information has been presented.	Various web resources, such as the BBC's Little animals activity centre. Story tapes.
	Podcast	Take any digitally recorded audio outcomes from pupils' work and share with a wider audience via the Internet. For example, as part of the Y6 journalistic writing unit pupils may produce a radio news bulletin and augment it with interviews, adverts and other types of text appropriate to the medium of radio. Audio files may be simply uploaded to a website so that they may be downloaded manually by listeners. Alternatively, if regular episodes are to be broadcast, have a podcast feed set up so that listeners may subscribe and have episodes delivered to them automatically. For example, a regular radio podcast through which a single class share examples of poetry, audio plays, interviews, stories, reports/recounts, advertisements etc.	Digital sound recording devices or computers with microphones. Audio editing and sequencing software, such as Audacity http://audacity.sourceforge.net or Garage Band http://www.apple.com/ilife/garageband/ Web hosting service - usually provided by Regional Broadband Consortium.
	Radio drama / audio enactments of narrative text	Produce drama conforming to the conventions of radio plays. Digitally record dialogue, edit and add music and sound effects. Share outcomes with a wider audience via the Internet.	Digital sound recording devices or computers with microphones. Audio editing and sequencing software, such as Audacity http://audacity.sourceforge.net or Garage Band http://www.apple.com/ilife/garageband/
	Mp3 commentary	Produce audio commentaries to be played back by an individual on a portable audio device as they move around a particular location. Examples: <ul style="list-style-type: none"> a guide to an art exhibition in which artists describe their pictures and sculptures; a guide to accompany a local history walk with descriptive and explanatory speech pertinent to specific points on the walk 	Digital sound recording devices or computers with microphones. Audio editing and sequencing software, such as Audacity. Portable audio playback device (Mp3 player).
	Broadcast features	Use web-based on-demand audio and video resources in the study of broadcast features.	Examples of various genres such as those found at www.bbc.co.uk
	Analysing broadcast talk	Use web-based on-demand audio and video resources in the study of: formality of talk; analysis of persuasive language; gesture; contexts and purposes for talk.	Examples of various genres such as those found at www.bbc.co.uk , free music player sites or iTunes

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Digital images	Photo storyboard	Plan for writing by using digital photographs to bridge between improvised narratives and narrative writing. Pupils improvise a narrative using drama techniques or small-world figures and toys. Take a limited number of still photographs to depict the key episodes of the narrative. Use the photographs as a storyboard plan. Construct the narrative by writing a chapter, a paragraph, sentence or label to accompany each photograph. Develop into narrative format.	Digital camera Word processor or desktop publisher.
	Cartoon storyboard	Plan for writing by using digital photographs to bridge between improvised narratives and comic book writing. Pupils improvise a narrative using drama techniques or small-world figures and toys. Take still photographs to depict the narrative. Import the photographs into a word processor and lay out in sequence. Add speech bubbles, thought bubbles and captions to reconstruct the narrative. Example: <ul style="list-style-type: none"> Y4 character with dilemma, pupils improvise using role-play techniques and then construct a storyboard in the style of a magazine photo story. 	Digital camera Word processor or desktop publisher.
	Phonics photos	Using a digital camera, children collect images of familiar objects which share the same initial phoneme.	Digital camera. Present pictures on a television set or computer.
	Photo prompts	Take photographs and use them to prompt children's recount of events or experiences, such as an educational trip or a visitor to school.	Digital camera connected directly to television set or digital photographs downloaded to a computer.
	Photo sequence	Record processes, such as investigations in science, photographically. Shuffle the order of the photographs and use re-sequencing activities to support oral recounts and explanations.	Digital photographs downloaded to a computer and displayed using an application which allows images to be sequenced, for example: an interactive whiteboard application.

Category	Title	Description	Resources
General	ICT instructions	Use ICT to provide a context for listening to instructions, following instructions and asking for help.	Various software titles or websites
	Compare media	Compare and contrast different versions of a text in different media forms. For example, compare a written scene from a children's classic novel with the audio adaptation, the live action movie and the animated movie.	Various
	Computer manuals and help	Use ICT as a context for the study of instructional text. Compare different computer software manuals for a single piece of software. Compare and contrast computer Help files with paper-based software manuals. Write your own software manuals by using screen-grab techniques to capture images.	Various software titles or websites. Various software manuals intended for different audiences. Word processing or desktop publishing applications.

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Interactive whiteboard	Handwriting challenge	Use the handwriting recognition feature of Interactive Whiteboard software to set handwriting challenges to pupils. Can they form their letters well enough for the computer to read?	Interactive whiteboard software with handwriting recognition software.
	Text mark	Scan or paste text extracts into interactive whiteboard documents. Use pen and highlighter tools to mark text features.	Interactive whiteboard application Scanner
	Hide and reveal pictures	Conceal pictorial stimuli behind a mask on an Interactive whiteboard. Slowly reveal the picture to stimulate speculation and discussion, questioning and response.	Interactive whiteboard application

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Multimedia	Peer review	Following a scientific investigation pupils present their experiences, including data, graphs, and photographs, to their peers. They debate alternative methodologies and conclusions; mirroring the practice of scientific communities outside school.	Multimedia presentation application, such as PowerPoint or Flash.
	Presentations	Use pictures, text or multimedia effectively to support oral presentations. Where possible use authentic audience for presentations, such as assemblies, governors etc.	Interactive whiteboard Data projector Multimedia presentation software, such as PowerPoint. Digital movie cameras.
	Multimedia books	Combine text, pictures and sound in a multimedia application to produce electronic books for specific audiences. For example, KS2 pupils could produce talking picture books intended for children in the reception class.	Multimedia application, such as PowerPoint.
	Multimedia poems	Create multimedia presentations of pupils' or other writers' poems. With sensitivity to the content of the poem, Combine various multimedia elements, such as: <ul style="list-style-type: none"> • tableau photographs, possibly with graphical effects applied; • sound effects, either from web sources or recorded by pupils; • digitally recorded speech, possibly with audio effects applied; • text, possibly with animated effects; • background effects music for introduction/finale 	Multimedia application, such as PowerPoint, photo gallery software or digital video editing application. Digital cameras. Microphones or hand-held digital audio recording devices. Audio editing software. Photo manipulation software.

Category	Title	Description	Resources
Online collaboration	Video conferencing	Use video conferencing to widen the range of opportunities for meaningful interaction through talk, conversation and discussion with people from other schools. Establish ground-rules for taking turns. Develop clear diction and microphone technique.	VC solution from regional broadband consortium. This need not necessarily require expensive hardware; most systems will work adequately with simple webcams.
	Chat scripts	Use online discussions to bridge between improvised drama and formal play scripts. After a drama improvisation, and with pupils still in role, allow individuals to contribute dialogue to a chat-room type discussion board. Subsequently select and copy discussion text and paste into a word processor where it may be worked up according to standard play-script conventions	Secure and private discussion board component of Learning Platform – often provided by LA or regional broadband consortium.
	Online reading journal	Maintain an online reading journal so that readers may log their reading experiences and others, such as parents and teachers, may comment and make suggestions to guide future reading.	Secure and private discussion board or blog component of Learning Platform – often provided by LA or regional broadband consortium.
	Online discussion	Use a discussion board for pupils to share ideas. For example, responding to a text. Where appropriate, extend the principle by allowing access from home or by working in partnership with people from another school.	Secure and private discussion board component of Learning Platform – often provided by LA or regional broadband consortium.
	Survey analysis	Set up an online survey to collect data about an issue. Collate, edit and combine responses to produce a balanced argument in prose form. For example, survey parents' views about whether or not to have a school uniform. Collate quotes from both sides of the argument by pasting survey responses into a Word processor. Edit quotes and use appropriate connectives in order to construct a balanced argument to present to governors.	Online survey component of Learning Platform – often provided by LA or regional broadband consortium.
	VC hot seat	Use video conference technology in character hot seat sessions. The subject, in role, could be in a different school. They might bring an alternative interpretation of a text or other insights.	VC solution from regional broadband consortium. This need not necessarily require expensive hardware; most systems will work adequately with simple webcams.
	Email stories	Work with a partner class, ideally from another school, to create a shared text. The text passes back and forth between the two classes as it is developed; chapter by chapter, paragraph by paragraph or sentence by sentence.	Email
	Email news stream	Simulate a newsroom in the classroom by receiving and responding to a stream of emails, each giving more details of a story as it breaks as though in real time.	Email. Some email client applications allow the scheduled sending of messages. This means that this activity can be set up in advance.
	Email inbox	Distribute texts and tasks to pupils by email and have them respond by email too. This approach is particularly effective when children and/or the teacher are working in role. Set up email distribution lists for groups of pupils in the class so that differentiated texts and tasks may be distributed efficiently.	Email.

Category	Title	Description	Resources
Online resources	Newsreel footage	Compare and contrast modern television news journalism with examples of movie newsreels from the early twentieth century.	British Pathe newsreel footage is available free of charge to schools via Regional Broadband Consortia. http://www.britishpathe.com/
	Ongoing online event	Follow an ongoing event with the class via the Internet. For example: <ul style="list-style-type: none"> • read the diary entries (blogs) from a round-the-world yacht voyage • follow a major international sporting tournament by comparing perspectives from around the world 	Topical websites
	Online news	Use the World Wide Web as a source of journalistic writing. Compare how different sites report world events. Compare with non-electronic formats.	Various web-based news services, some of which may be written specifically with children in mind.
	Biographical websites	Many well known children's authors have interesting websites with details of publications, biographical details, etc. Some also have moderated chat areas. Link also with sporting, musical or TV/film personalities.	Many sites, for example: http://www.michaelrosen.co.uk/
	Online book reviews	Write book reviews and publish to authentic online sites. Emphasise writers' responsibility to the audience for accuracy and suitability of style.	Online booksellers' websites
	Audio networks	Use an online audio library to find aural stimuli for drama and writing.	A vast range of instrumental music which is freely downloadable in schools is available from Audio Networks: http://audio.lqfl.org.uk
	Dictionary	Use online and CD ROM-based dictionaries. Compare and contrast the paper dictionaries with paper-based versions.	Online dictionaries. CD ROM dictionaries.
	Keyboard tutor	Use online keyboard tutor resources to develop manual dexterity and keyboard fluency. Consider as an ongoing homework task.	Various free resources available. For example, http://www.bbc.co.uk/schools/typing/

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Proprietary software	Crossword solver	Use software which produces crossword grids to make puzzles to support pupils' spelling.	For example, JCross – (part of the HotPotatoes suite, free for educational use for those publishing their work on the web from http://hotpot.uvic.ca/)
	Crossword compiler	<p>Pupils use software which produces crossword grids to make puzzles. For example:</p> <ul style="list-style-type: none"> • children make a puzzle where all the answers are about a class novel; its characters and events. In order that they may devise suitable clues, they must fully understand the text • children create crosswords which then challenge peers to complete based on current spelling objectives 	For example, JCross – (part of the HotPotatoes suite, free for educational use for those publishing their work on the web from http://hotpot.uvic.ca/)
	Wordbank	Support children's writing by giving them access to wordbank software. In their simplest form, wordbanks provide writers with grids of vocabulary from which they may choose rather than typing. More sophisticated grids can offer varying degrees of support and scaffolding for writing.	Text compiler with wordbank facility
	Multimedia visualisation	Use multimedia storyboard software to create an animated visualisation of a text. For example, pupils construct an animated storyboard to represent their interpretation of a Shakespeare text.	Multimedia presentation software, for example, Kar2ouche or Powerpoint
	Role-play software	Use software which simulates appropriate real-life uses of ICT in the role-play area. For example, if the role-play area is set up as a doctor's surgery; use a computer and doctor's surgery software for children to use during consultations.	<p>Role-play software such as 'At the Doctor's'</p> <p>http://www.onestopeducation.co.uk/icat/1842353977main</p>

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Video	Stop-frame animation	Create a visual adaptation of a simple text using toys, modelling clay, play figures and stop-frame animation techniques.	Digital movie camera and editing software, such as the DigitalBlue Movie creator.
	TV Advertisements	Consider TV adverts as type of persuasive text. Using digital video techniques, pupils can produce advertisements which conform to the conventions of the genre.	Digital movie camera. Movie editing software, such as Movie Maker or iMovie. Online music library, such as Audio Networks: http://audio.lqfl.org.uk
	Director's commentary	Deliver a spoken commentary over a video text in the style of a DVD director's commentary track. Focus on elements of visual literacy and articulate what the director is 'trying to say'.	Digital video editing application
	Screen recorder	Use a screen recorder to record an ICT procedure, process or technique. Annotate with captions or add a spoken commentary to clarify and explain.	Screen recording feature of an interactive whiteboard suite of programs or independent screen capture application. Digital movie editing software.
	Silent movies	Explore the silent movie comedy genre, for example Buster Keaton. Compare and contrast with modern comedy in terms of narrative techniques, camera techniques, visual effects and plot. Produce silent comedy shorts conforming to the conventions of the genre. Link to aspects of social history.	Digital movie cameras or digital stills cameras which allow recording of short movie clips. Digital movie editing software, such as Movie Maker or iMovie.

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Word processing (continues overleaf)	Track changes	Use the track changes tool of a word processor for response partners to make editorial suggestions. These suggestions may either be, accepted, rejected or left as evidence of the drafting process.	Word processor with track changes tool.
	Comments	Use the comments tool of a word processor to annotate a piece of text. By changing the 'user information' for each person, individuals' comments may be correctly attributed. This approach can be used by response partners or teachers when marking work.	Word processor with comments feature.
	Text type swap	Provide pupils with text onscreen for them to convert from one type to another, as appropriate to the literacy objective. For example, convert: poetry to prose and vice versa, or story to playscript	Word processor
	Find and replace punctuation	Use the find and replace tool of a word processor to strip out certain punctuation characters from a text. Alternatively, change all punctuation characters for a single arbitrary character. Challenge pupils to re-punctuate the text. Capital letters may also be removed using the 'change case' feature.	Word processor with 'find and replace all' feature. Word processor with 'change case' format option.
	Audio comments	Insert audio recordings into a text as a form of annotation or marking.	Word processor with sound recording feature.
	Homograph investigations	Use talking word processors to investigate homographs – these are the words which catch out talking word processors.	Word processor with text-to-speech feature.
	Reading <i>without</i> expression	Use a talking word processor to illustrate how important expression is when reading aloud.	Word processor with text-to-speech feature.
	Narrative balance	Some pupils find it challenging to maintain an appropriate balance of emphasis in narrative writing, for example by over emphasising the start at the cost of the narrative's development or conclusion. Provide pupils with incomplete texts to develop; focusing on the need for balance in the finished piece.	Word processor
	Thesaurus	Use the thesaurus tool of a word processor to develop text. Compare and contrast with a paper-based thesaurus.	Word processor with thesaurus tool
	Thesaurus surfing	To show how a thesaurus must be used with caution, use the thesaurus tool of a word processor to deliberately distort the meaning of a text by finding synonyms of synonyms etc.	Word processor with thesaurus tool
	Précis	Children's précis texts by deleting and editing superfluous words and phrases. Use the word processor's word count tool to set maximum word targets that must be met without distorting the text's essential meaning. Also extend to consider the impact of sentences and paragraphs.	Word processor with word count tool.
	Sentence level re-sequence	Use the word processor's 'drag and drop' or 'cut and paste' facility to investigate the effect of re-ordering word, clauses and phrases in sentences.	Word processor
	Archive text	A use child's saved work from previous years as a resource. Develop ideas at sentence and text level. Use a wordprocessor to quickly develop the sophistication of writing.	Archive text files

Category	Title	Description	Resources
Word processing (continuation)	'Find' investigations	Use the 'find' tool of a wordprocessor to scan a large body of text for particular graphemes. Investigate where the graphemes appear in words and sentences.	Word processor